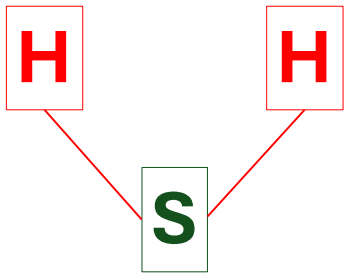
Chemical of the Week – Part 2

Hazard Profile	
Chemical Name and Pseudonyms	Hydrogen sulfide, Hydrosulfuric acid, Swamp gas, Sulfuretted hydrogen
UN Number	1053
Chemical Formula	H_2S
Hazards	Flammable, toxic compressed gas
NFPA Hazard Class (H-F-R-Ⓞ)	4 – 4 – 0 –
PPE Considerations	SFPC with SCBA
Fire Fighting Considerations	Use extinguishing agent appropriate for surrounding flammable materials
Decontamination	Forced air
Detection and Monitoring	Colorimetric, spectroscopy, electrochemical sensor, CGI, PID (IP=10.46 eV)
Chemical and Physical Properties	
Physical State	Shipped as compressed gas
Vapor Pressure	17.6 ATM
Boiling Point	-77°F
Vapor Density	1.19
Specific Gravity	.916
Miscibility	.4%
Flash Point	-
LEL/UEL	4% / 44%
Autoignition Temp	500°F
pH	4.5 when in solution with water
Toxicity	
IDLH	100 ppm
LC50	440 ppm
LD50	-
AEGL1/AEGL 2/AEGL 3 – 10 Min	.75 / 41 / 76 ppm
Emergency Response Planning Guide (ERPG) 1/2/3	.1 / 30 / 100 ppm
Protective Action Criteria (PAC) 1/2/3	.51 / 27 / 50 ppm (LEL =40000 ppm)
PEL/REL/STEL	.1 / 20 / 50 (10 min) ppm
Radioactive (Yes/No)	No
Medical	
Toxicological Considerations	Primary route of exposure is inhalation
Signs/Symptoms of Exposure	Asphyxia, eye irritant, CNS s/s including dizziness, slurred speech, confusion, unconsciousness

Medical Treatment	Fresh air, treat symptomatically
Other Information	
Incompatible with strong oxidizers, nitric acid, metals	
Chemical Structure